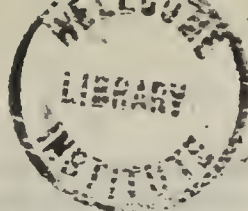


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## NORTH OF SCOTLAND

## Medical Association.

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ADDRESS BY Dr. OGSTON,*August, 1872.*

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Gentlemen,—I gladly take this opportunity of cordially thanking you for the compliment you have paid me in placing me in this chair. The compliment, I need not say, is enhanced by the circumstance of its having been filled, up to this time, by the worthiest members of the Association—some already removed from us, and one whose retirement and its cause we all regret. Our body—under the able management of its indefatigable secretaries—whether as originally limited or as now extended, has done some good work among us. It has brought together, in harmonious co-operation and good-fellowship, brethren who might otherwise have stood apart in opposition and hostility; and it has afforded us much-needed opportunities of airing and settling matters both of public and private interest, bearing on our own position. And though occupying, as we do here, but a remote and isolated corner of the country, such gatherings will contrast not unfavourably with others naturally presenting greater facilities for closer and more convenient meetings and co-operation. We cannot, with them, to be sure, draw upon wide fields of practice, and crowded and concentrated areas of disease; but, on the other hand, we have greater leisure, and equal facilities, for comparing our observations and experience with those of the published views and conclusions of the lights of our science at home and abroad. In common with kindred bodies, we may, on occasions like this, take stock, as it were, of our business, and note its position, whether retrograding, stationary, or advancing. Some such duty as this last I would fain attempt here, in imitation of the example set us by the larger professional societies elsewhere, and by more than one of my esteemed predecessors. I would not, however, here presume to do more than direct or recall your attention to one aspect of the subject, which may not be practically familiar to most of you, viz., the contrast presented by the science of medicine as at present known and pursued, as compared with its condition at the time I entered on its study—a date farther back, I believe, than almost any of

you can go. These contrasted phases of medicine may be obtained from several sources, from which two only may be selected—one of these the state of the medical schools and corporations; the other the standard expected to be reached by the entrant into the profession at the period to which I have referred. In the first place, then, in Aberdeen the teaching in chemical science was limited to a few rude experiments, of the most elementary character, in its inorganic department. The anatomical teaching was confined to lectures, with a few such demonstrations as the very limited supply of subjects permitted, and an occasional and much-coveted opportunity of actually dissecting a part of the body. Surgery was taught orally, without apparatus or means of illustration, unless where a stray subject was happily procured by the student from the churchyard, at the risk of being caught and tried as a burglar. Clinical medical and clinical surgical tuition were ignored, the two distinct spheres of practice not having been recognised at the Infirmary—one and the same person treating indiscriminately medical and surgical cases. In Edinburgh, the same Professor taught anatomy and surgery. Midwifery, pathology, and forensic medicine were left out of the curriculum, though two of these had separate chairs assigned to them. The course of botany went no farther than the exposition of so much of the structure of the plant as to enable the student to fix its place in the Linnean system. If in addition to the inferences deducible from the state of the teaching bodies fifty years ago, we consider the limited range of information expected of the candidate for a degree or licence to qualify himself for practice, the little advanced state of the science, as compared with its existing condition, will be readily perceived. In the Edinburgh College of Surgeons, though the curriculum was wider, the test subjects in the examination for the licence did not extend beyond materia medica and surgery; in the College of Surgeons of London (now of England), to anatomy and a smattering of surgery. In Edinburgh University the examiner in botany, of course, expected no more from the intending candidate than, as we have seen, he was taught in his class. As already intimated, midwifery and forensic medicine had no representatives in the examining body. The examiner in anatomy and surgery seldom went further than a few questions on pathological anatomy, perhaps because he had published a book on the subject. The representative of medicine was satisfied with what of diseases, and their classification, was deducible from “Cullen’s First Lines.” What facilities for an easy pass were afforded by the employment of a dead language may be readily supposed. It was sometimes difficult indeed to determine whether the examiner or the examined was the less expert in the use of colloquial Latin, and how much of the deficiency of the latter was properly to be attributed to his ignorance of his profession, and how much was covered by his deficient Latinity, it was not always easy to decide. In further illustration on the point I am urging, let us glance back at the character of the text books put into the hands of the student at the time in question to qualify him for taking his place in the practice of his profession. The paltry treatise of Male, and a translation of Orfila on Poisons, represented the state of forensic medicine; Haslam’s slight work, that on Medical Psychology; Smith’s Introduction to Botany, took no notice

of the natural classification of plants. Physiology and Therapeutics were represented by "Gregory's Conspectus;" chemistry and materia medica by "Murray's Treatises" on these subjects; medicine, by the now forgotten work, "Thomas's Practice;" midwifery proper was better represented by Burns's volume, and surgery, by Cooper's "First Lines" and Dictionary, now, however, nearly forgotten books. Contrasted with these, the representative works now in the hands of our students give abundant proofs of improvement in every branch of the profession. Our botanical works now embrace such previously unknown or disregarded subjects as the physiology of plants and morphology. Numerous and painstaking as were the experimental trials of Orfila, the faulty method of procedure adopted by him vitiated his conclusions on the actions of poisons; and the science of toxicology had to be taken up anew by his successors. In descriptive human anatomy, our advances have mainly consisted in our closer observation of the inter-connections of the smaller arteries and nerves, and the accurate mapping out of the regions of the body in aid of the pursuits of the surgeon and physician. The extended study of comparative anatomy has also thrown light on human anatomy. The further claims made by the anatomist to the credit of opening up to us the minuter textures of the animal organism, the arrangement of its parts, and their modifications to meet its different wants under altered circumstances—in other words, his claim to the origination and extension of histology and transcendental anatomy—he must share largely, to say the least of it, with the physiologist. In inorganic chemistry the number of elements has been largely added to; some of them—such as lithia and cereum—yielding new compounds available in medicine. Such discoveries as the theories of definite proportions of Isomorphism and Isomerism, the law of the diffusion of gases, and Gerhardt's modified notation, have thrown much novel light on our various chemical processes and combinations. In organic chemistry our signal progress is exhibited by the discovery and appreciation of the compound organic radicles, the doctrine of substitution, the theory of types, the tracing out the homologous series of organic compounds, with their instructive decompositions and metamorphoses, discoveries which have extended our physiological views, and enriched our materia medica. Materia medica, still to a large extent purely empirical, has moved onwards with the progress of botany, chemistry, and toxicology. From each of these it has borrowed some of its most valuable new remedies, such as chloroform, chloral, bromine, podophylin, kousso, sautonine, the vegetable alkaloids, &c. Borrowing largely from the striking discoveries and refined experimental trials in physics, chemistry, and anatomy, physiology has been very largely extended, and its value immensely increased. Where obscurity reigned, as in the intimate structures of the brain, spinal chord, nerves, and nerve cells, central and peripheral, the tissues have been successfully unravelled, and their functions elucidated. The long and intricate changes preceding and following the meeting of the ovum and spermazoon, and their analogues in animals and vegetables, have been successfully followed to their completed structures. New and enlarged views have been opened up to us on absorption, secretion, growth, and decay; the structural arrangements, functions, and place in the system of the liver, kidneys, capillaries



and their contents, &c. How much of all this has been owing to the now perfected microscope, and various chemical and mechanical reagents and instruments, I need but to remind you. Names in this department of late so crowd upon us that, were it not unjust to others, I might signal out a few, such as Virchow, Cohnheim, Bayle, Lockhart Clark, and Richardson. In medical psychology, an offshoot of physiology, the brilliant inductions had to be commenced in the period to which we are referring; inductions which are rapidly clearing away the cloud of obsolete errors which have so long gathered around metaphysics, and extended the domain of one of the most important branches of our science. I refer not so much to the ~~extension~~ of the range of the so-called vital laws, as to the now admitted connection of insanity and its allied disorders with the various neuroses. The last half century may be considered as the birthplace of pathological anatomy; for, when we have enumerated the treatises of Morgagni and Baillie, we have summed the store of our previous possessions in this department. Following the advances made in different directions by the collateral sciences, therapeutics now seeks to detach itself from *materia medica* and the practice of physic, seeking not to follow, but to lead. And though some may blame it in this, it has not disdained to borrow valuable hints from quarters which most of us justly place beyond the pale of legitimate science. On the principle of accepting help from any other quarter, I would not be disposed to blame the therapist; however, if he has had his attention directed through their means to the value of the purely expectant treatment; the efficacy of some medicines hitherto little known, and these and others in small doses; the frequent necessity of restraining injurious habits in the presence of acute, but especially of chronic diseases, the value of pure water outwardly and inwardly. What of positive advance this branch of our science may claim, I need scarcely say, it must share almost entirely with those from which it has more immediately broken off—with chemistry, physiology, and toxicology, with which it is so frequently contemporaneous. Something, however, it has attempted independently of these, such as the ascertaining, as far as possible, prior to seeking the alleviation or cure of disease, the tendency it has to self-limitation or to self-cure; what, if any, the real efficacy of some of our popular remedies over morbid states; and what, on the disappearance or mitigation of disease, is properly attributable to those remedies. If, in this way, therapeutics have done no more, it has qualified much of our previously blind reliance on mere drugs, reformed our neglect of hygienic measures, and pointed out general indications of cure which we may safely follow, and rely on to a certain extent. One valuable service it has attempted, and carried out so far successfully: I refer to what it has done in tracing out the modes of entrance and exit of certain medicines, externally and internally applied; the more obvious wants they are fitted to supply; the elements they are capable of modifying, neutralising, or expelling; the actual amount of their influence over physiological and pathological processes. In the ill-defined border territory betwixt physiology and pathology, conveniently, though rather absurdly, by the French, named physiological pathology, we have not a little of important progress to note. Take as a prominent illustration the introduction by Laennec of the *percuteur* and the *stethoscope*, with their results, the auscultation of the

lungs all but perfected by this illustrious person, and the auscultation of the heart, first studied by him, but only brought to a like approach to perfection by the host of careful observers who followed in the same path from 1824 to 1843. Of the gains acquired to our science by the labours of the pathologist and physiologist approaching these subjects from different sides, and meeting on common ground, we have examples in the introduction into clinical medicine of the test tube, the thermometer, the eardiograph, and the sphygmograph, borrowed from chemistry and physics. Surgery, or what was formerly claimed exclusively as surgery, has advanced itself nearly as much by what it has lost as by what it has gained. The surgeon and the physician, while mostly ceasing to poach on each others' province, have each practically leased off portions of their former domains to parties better able to concentrate their labours on the fields thus abandoned. Nor has this self-denial, as it may be termed, been without its reward. Thus, while surgery has to a large extent given off ophthalmology, auristry, and dentistry; and medicine, practical psychology and diseases of the skin; ophthalmology, in extending control over the diseased eye, has given to surgery new and better operations, and to medicine, further insight into morbid states of the brain and kidneys; while dentistry has been able to connect affections of the teeth with constitutional disorders and congenial diseases, whose local origin had not been previously suspected by the pure physician. The onward course of pure surgery has been marked by its adoption of painless and less protracted and dangerous operations; by successful attempts to avoid the necessity of these altogether; saving lives and curing diseases, formerly deemed fatal or incurable; reaching parts previously deemed inaccessible, by the adoption of new instruments; successfully counteracting the causes, or lessening the chances, of blood poisoning; enforcing the necessity of mere rest in diseases of the joints and prior to important operations, &c. Some of these advances are marked by the adoption of names of more or less recent date; such as anæsthesia, lithotripsy, tenotomy, conservative surgery, antiseptic treatment, laryngoscopy, &c. Practical midwifery within the period spoken of has been successful in shortening labour and facilitating its accomplishment in difficult cases; in lessening the risks of the so-called puerperal fevers—pyæmia and blood poisons. With the aid of the anatomist, physiologist, and histologist, it has thrown much light on the earlier evolutions of the fœtus, the causes of abortions and premature labours, the origin of defects and malformation in the infant, &c.; and it has shared, with the physician and his accomplices, in extending our knowledge of the diseases of women and children to an extent which almost entitles these important departments to the character of new branches of the science. Medicine, like its sister department surgery, has benefited largely by the progress of physiology, pathology, and chemistry. It has wisely abandoned injurious practices—polypharmacy, large and repeated bleedings, and other lowering treatment, the pill and purge system. It has recognised the value of prophylactic and hygienic measures and appliances. It has turned to good account the test tube and the thermometer; and it has invented the stethoscope, the sphygmograph, and the cardiograph. It has thrown much needed

light on the origin of entozoa and the various zymotic diseases. By its closer observation of the morbid states of the body, it has not only distinguished diseases formerly confounded together, such as typhus and typhoid fever, paralysis and locomotor ataxy, but has discovered others by which we were previously ignorant, such as tubercular meningitis, albuminuria fatty degeneration of the heart, endocarditis. Causes of serious diseases and sudden deaths, previously undreamt of, have been discovered, such as thrombosis and emboli, and though our power over disease has not kept pace with our improvements in its diagnoses, something has been gained even here by the employment of some of those remedial agents previously alluded to, and the removal of morbid affections from the list of incurable to that of occasionally curable diseases. I refer particularly to aneurism of the aorta and phthisis. In the latter of these diseases, which annually carries off 53,000 of the population of England and Wales, one of our latest and best authorities, in a practice extending over 30 years, and embracing 25,000 cases of consumption, gives as the result of his recent experience in living cases, 34 or 4.5 per cent. apparently cured; 280 cases, or 38 per cent., benefited by treatment; 102 cases, or 13.39 per cent., stationary; leaving 321, or 43.53 per cent., set down by him as beyond the hope of alleviation or cure. But on this, as well as the more detailed illustration of the preceding subjects, I cannot dwell without encroaching on the proper business of our meeting. My object in the few remarks I have hastily thrown together was—allow me to repeat—to contrast our present state with that which it presented at a period not very remote in the history of a profession dating back many hundreds of years, though still as elastic and juvenile as in the days of Hippocrates or Galen. In doing so, the few illustrations I have offered have been selected almost at random; avoiding only all notice of points which are but of doubtful truth, or which are liable to challenge, or such as are not yet established on sufficient grounds; specimens of all of which are not far to seek in medicine.





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